BIJL et al. - Appln. No. 08/821,025

## **IN THE CLAIMS**

This listing of claims replaces all prior versions, and listings, in this application.

Claims 1-67 (canceled)

68. (previously presented) A dried composition that is stable on storage at room temperature consisting essentially of granules comprising extruded microorganisms which are fungi of the genus *Mortierella*, wherein said fungi are dead and wherein the granules in the composition have a porosity generated by drying of granular particles of the extruded microorganisms and have a diameter between 0.1 millimeters to 12 millimeters.

Claims 69-71 (canceled)

72. (previously presented) The granule composition of claim 68, wherein the fungi are *Mortierella alpina*.

Claims 73-75 (canceled)

76. (previously presented) The granule composition of claim 68, wherein the granules comprise a polyunsaturated fatty acid.

77. (previously presented) The granule composition of claim 76, wherein the polyunsaturated fatty acid is contained in a lipid.

78. (previously presented) The granule composition of claim 76, wherein the polyunsaturated fatty acid is arachidonic acid.

Claim 79 (canceled)

BIJL et al. - Appln. No. 08/821,025

80. (currently amended) The granule composition of claim 68, wherein the granules comprise arachidonic acid, eicosapentaenoic acid, or a combination of the foregoing.

Claims 81-82 (canceled)

83. (previously presented) The granule composition of claim 68, wherein the granules have an average dry matter content of 80% or more.

Claim 84 (canceled)

- 85. (previously presented) The granule composition of claim 68, wherein the granules are obtained by extruding a biomass having a dry matter content of 25% to 80%.
- 86. (previously presented) The granule composition of claim 68, wherein the granules are obtained by mechanical extrusion.
- 87. (previously presented) The granule composition of claim 68, wherein the diameter of the granules is 0.3 millimeters to 10 millimeters.
- 88. (previously presented) The granule composition of claim 68, wherein the diameter of the granules is 1.5 millimeters to 6 millimeters.
- 89. (previously presented) The granule composition of claim 68, wherein the diameter of the granules is 2 millimeters to 3 millimeters.
- 90. (previously presented) The granule composition of claim 68, wherein the length of the granules is on average 2 to 6 times the diameter.
- 91. (previously presented) The granule composition of claim 68, wherein the porosity of the granules is 15% to 50%.

- 92. (previously presented) The granule composition of claim 68, wherein the porosity of the granules is 20% to 40%.
- 93. (previously presented) The granule composition of claim 68, wherein the porosity of the granules is 25% to 35%.
- 94. (previously presented) The granule composition of claim 68, wherein the porosity of the granules allows solvent access.
- 95. (previously presented) The granule composition of claim 68, wherein the granules are free flowing.
- 96. (withdrawn) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 68 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

Claims 97-112 (canceled)

113. (withdrawn) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 68 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.
- 114. (previously presented) Dried granules comprising extruded microorganisms which are fungi of the genus *Mortierella*, wherein the dried granules:
- (i) have a porosity generated by drying of granular particles of the extruded microorganisms;
- (ii) comprise arachidonic acid; and
- (iii) have an average dry matter content of 80% or more.
- 115. (previously presented) The dried granules of claim 114, wherein the arachidonic acid is contained in a lipid.
- 116. (previously presented) The dried granules of claim 114, wherein the porosity of the granules is 15% to 50%.
- 117. (previously presented) The dried granules of claim 114, wherein the dried granules have a diameter from 0.1 millimeters to 12 millimeters.
- 118. (previously presented) The dried granules of claim 117, wherein the dried granules have a diameter from 0.3 millimeters to 10 millimeters.
- 119. (previously presented) The dried granules of claim 114, wherein the granules have a lipid content from 30% to 50% by weight.
- 120. (previously presented) The dried granules of claim 114, wherein the fungi are *Mortierella alpina*.

- 121. (previously presented) Dried granules comprising microorganisms which are fungi of the genus *Mortierella*, wherein the dried granules:
- (i) have a porosity that allows solvent access;
- (ii) comprise arachidonic acid; and
- (iii) have an average dry matter content of 80% or more.
- 122. (previously presented) The dried granules of claim 121, wherein the porosity of the granules is 15% to 50%.
- 123. (previously presented) The dried granules of claim 121, wherein the dried granules have a diameter from 0.1 millimeters to 12 millimeters.
- 124. (previously presented) The dried granules of claim 123, wherein the dried granules have a diameter from 0.3 millimeters to 10 millimeters.
- 125. (previously presented) The dried granules of claim 121, wherein the dried granules have a porosity generated by drying of granular particles comprising the microorganism.
- 126. (previously presented) The dried granules of claim 121, wherein the dried granules are obtained by extrusion.
- 127. (previously presented) The dried granules of claim 121, wherein the arachidonic acid is contained in a lipid.
- 128. (previously presented) The dried granules of claim 121, wherein the granules have a lipid content from 30% to 50% by weight.
- 129. (previously presented) The dried granules of claim 121, wherein the fungi are *Mortierella alpina*.

- 130. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 121; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 131. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 122; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 132. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 123; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 133. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 124; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 134. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 125; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

- 135. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 126; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 136. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 127; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 137. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 128; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 138. (withdrawn) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 129; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 139. (withdrawn) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;

- extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 72 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

140. (withdrawn) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 72 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.

141. (withdrawn) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:

- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 76 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

142. (withdrawn) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 76 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.
- 143. (withdrawn) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 77 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).
- 144. (withdrawn) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 77 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.
- 145. (withdrawn) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;

- extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 78 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

146. (withdrawn) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 78 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.

147. (withdrawn) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:

- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 80 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

148. (withdrawn) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 80 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.

149. (new) A composition which is stable on storage at room temperature comprising granules obtained by extruding a biomass and then drying the extruded biomass, wherein the biomass comprises dead fungi of the genus *Mortierella*, and wherein the granules comprise arachidonic acid and have:

- (i) a porosity from 15% to 50%, wherein the porosity of the granules allows solvent access;
- (ii) an average dry matter content of at least 80%; and
- (iii) a diameter between 0.1 millimeters to 12 millimeters.

150. (new) The granule composition of claim 149, wherein the extruded biomass has a dry matter content of 25% to 80%.

151. (new) The granule composition of claim 149, wherein the granules are obtained by mechanical extrusion.

152. (new) The granule composition of claim 149, wherein the fungi are *Mortierella alpina*.

153. (new) The granule composition of claim 149, wherein the arachidonic acid is contained in a lipid.

154. (new) The granule composition of claim 149, wherein the porosity is from 20% to 40%.

BIJL et al. - Appln. No. 08/821,025

155. (new) The granule composition of claim 149, wherein the porosity is from 25% to 35%.

156. (new) The granule composition of claim 149, wherein the granules are free flowing.

157. (new) The granule composition of claim 149, wherein the diameter of the granules is 0.3 millimeters to 10 millimeters.

158. (new) The granule composition of claim 149, wherein the diameter of the granules is 1.5 millimeters to 6 millimeters.

159. (new) The granule composition of claim 149, wherein the diameter of the granules is 2 millimeters to 3 millimeters.

160. (new) The granule composition of claim 149, wherein the length of the granules is on average 2 to 6 times the diameter.

161. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 114; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

162. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 149; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

163. (new) The process according to claim 162, wherein the fungi are Mortierella alpina.

164. (new) The process according to claim 162, wherein the arachidonic acid is contained in a lipid.

165. (new) The process according to claim 162, wherein the granules have a lipid content from 30% to 50% by weight.

166. (new) The process according to claim 162, wherein the porosity is from 20% to 40%.

167. (new) The process according to claim 162, wherein the porosity is from 25% to 35%.

168. (new) The process according to claim 162, wherein the granules are free flowing.

169. (new) The process according to claim 162, wherein the diameter of the granules is 0.3 millimeters to 10 millimeters.

170. (new) The process according to claim 162, wherein the diameter of the granules is 1.5 millimeters to 6 millimeters.

171. (new) The process according to claim 162, wherein the diameter of the granules is 2 millimeters to 3 millimeters.

172. (new) The process according to claim 162, wherein the length of the granules is on average 2 to 6 times the diameter.